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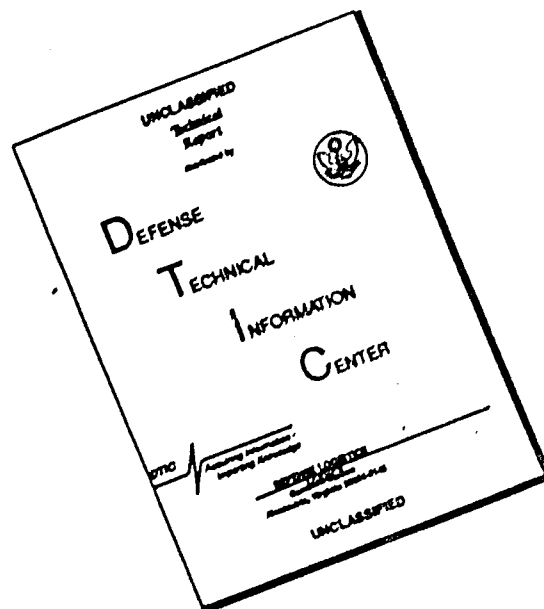
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HEADQUARTERS
62ND ENGINEER BATTALION (CONSTRUCTION)
APO 96321

AD389784

EGACBA-3

31 October 1966

SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 31 October 1966.

THRU: Commanding Officer
35th Engineer Group (Construction)
APO 96312

Commanding General
18th Engineer Brigade
APO 96307

Commanding General
United States Army, Vietnam
ATTN: AVC-DH
APO 96307

Commander In Chief
United States Army Pacific
ATTN: GPOP-MH
APO 96558

TO: Assistant Chief of Staff for Force Development
Department of the Army (ACSFOR DA)
Washington, D.C. 20310

Section 1. Significant Organization on Unit Activities.

1. (U) General: Throughout this reporting period, the 62nd Engineer Battalion (Construction), continued to apply the major portion of its construction effort in the Phan Rang, RVN Area. Effort was phased out of the Expeditionary Airfield Project with increased emphasis on construction of the 4700 Man Cantonment Area and Port Facilities in the Phan Rang vicinity. Other projects engaged during this period included a medium lift Airfield, Boa Loc; Signal Relay Station, Lang Bain Mt; Troposcatter Site, Ambre Broye; Rehabilitation of QL #1 from Phan Rang to Cam Rahn Bay; and rehabilitation of Cam Ly Airstrip at Dalat, RVN. The Construction of the "Off Base POL Facility" which included the Beach to Base overland six (6) inch pipeline, a pump station and submarine pipeline and Tanker Off Loading Facility was completed this period.

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Section 1. Significant Organization on Unit Activities (Cont'd)

2. (U) Mission: The mission of the 62nd Engineer Battalion (Construction) during this period was commensurate with the mission of a Construction Battalion as stated in TOE 5 -115D, with the notable exception that the Battalion still is tasked with the mission of transporting all necessary materials for construction at Phan Rang from the Engineer Supply Yards at Cam Rahn Bay.

3. (C) a. Administration and Personnel: There has been an appreciable change in the assigned personnel readiness category this reporting period. The Battalion has recovered from the tremendous personnel loss suffered in July and August as a result of the Battalion's first anniversary in the Theater of Operations. Average assigned strength at the end of the reporting period was 870 versus a TOE strength figure of 893 and a present for duty strength of 714 indicating a high number of personnel in transit and TDY. The most significant personnel shortage lies with the Battalion's Officer strength. Currently there are 35 Officers and Warrent Officers present for duty of 42 authorized. Considering losses and gains within the next 60 days the Officer and Warrent Officer strength will be 31 of 42 authorized. The Battalion is now able to effectively support a sustained two shift operation.

b. (U) Civic Actions: The friendly relationships established with local nationals when the unit first arrived at Phan Rang were continued during this period. The scope of the civic actions program was further increased as was the medical and spiritual aid given to the local populace by the Battalion Surgeon and Chaplin. In addition to civic actions previously undertaken by the Battalion, a program of providing financial assistance to Vietnamese students to allow them to continue their education, rehabilitation of the Vietnamese Hospital in Phan Rang and equipment assistance to a Vietnamese National Youth Group which is developing an agriculture and livestock training center was initiated during this period.

4. (U) a. Operations: During this report period the 62nd Engineer Battalion (Construction) actively engaged in Construction activities during 85 days of the period. A cumulative total of 4 days mandatory training (not including OJT) was conducted during this period.

b. (U) Throughout this period no delays in orderly construction were experienced due to lack of adequate plans or specifications. During this period the Battalion has been granted even greater liberties in exercising its design capabilities. This insures adequate design commensurate with conditions and available materials and allows for ease of design changes as necessary.

c. (U) Weather throughout this reporting period has been generally favorable to construction operations. Precipitation totaled 9 5/8 inches during this period with 1 3/8 inches in August, 2 3/4 inches in September and 5 1/2 inches in October. Recorded Meteorological Data indicates an average rain fall of 17 inches can be expected during this period. Comparison of the rain figures indicates a "dry" monsoon season and a genuine "break" for construction units. No damage to facilities constructed by this Unit were experienced during the rains that did occur this period.

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Section 1. Significant Organization of Unit Activities (Cont'd)

d. (U) During this report period, Construction of the Expeditionary Airfield at Phan Rang was virtually completed by this Unit. The most significant feature of the Airfield Construction during this period was the completion of a 1,000,000 square foot tactical fighter parking apron. Also during this period the Airfield drainage system was completed along with access to five (5) each Maintenance Hangers. During this period a total of 46 MBBL of POL storage tankage was connected to a manifold system which connected the Tanker Off-loading system to the storage system and Air Force bladder dispensary system. At the close of this period the asphalt surfacing of the runway overruns and truck fill unloading facilities on the On Base Tank Farm (Included in the Expeditionary Airfield Project) remain to be completed. In both instances shortage of OICC supplied materials is delaying completion of the task.

e. (U) The Phan Rang "Off Base" POL facility which included 8.3 miles of 6" invasion pipe, a four (4) unit pump station, twin 8" submarine pipeline and tanker mooring facility was completed this period and completion report submitted. DA form 1354's were executed to transfer this real engineer property to the 1st Logistical Command.

f. (U) Construction of the 4700 Man Cantonment area for the 1st Brigade 101st Airborne Division at Phan Rang continued throughout this period. At the close of this period the Cantonment Area was basically to Standard 3 with the exception of several latrines and showers that will be constructed early during the next period. Construction of Standard 4 troop billets started during the latter part of this period. At the close of the period there were some 35 out of 271 troop billets completed. A 50 Man Self - Help Contingent from the 101st has joined this Battalion's Construction force for the erection of troop billets. Hauling of materials to support the Standard 4 Construction continues to be a problem and is further discussed in detail in paragraph 6 below.

g. (U) During this report period this Battalion received a Construction directive that included the construction of approximately eight (8) miles of two lane all weather road from the Phan Rang Air Base Complex to the Ninh Chu beachhead at the Bay of Phan Rang, two (2) temporary LST Ramps with a 25,000 square yard stabilized area for cargo handling on the beach, a temporary Barge Off Loading Facility to be constructed by sinking a salvaged Transportation Corps Barge, and a permanent Barge Off Loading Facility utilizing Navy Pontoons for a wharf. By the end of the period the LST Ramps and the Cargo Handling Area were occupied beneficially by the Transportation Corps. The Beach to Base road was partially complete and the Barge Off Loading Facilities had not been started. It is anticipated that the entire project will be completed during the next period with the exception of the permanent Barge Off Loading Facility which will require a moderate amount of dredging before it can become operational.

h. (C) This Battalion resumed its combat support role in Boa Loc RVN this period. On 15 September 1966 a reinforced earthmoving platoon moved to Boa Loc and undertook completion of the 3500 foot medium lift forward strip and a 180' X 900' C-130 parking apron.

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Section 1. Significant Organization of Unit Activities (Cont'd)

At the close of this period this portion of the project was 90% completed with the T-17 overlay to begin on or about 15 November 1966. In addition to the Airfield the platoon is tasked with the construction of approximately 120,000 square yards of working area for three (3) airmobile companies and a forward supply area consisting of approximately 86,630 square yards of storage area.

i. (U) Work continued in support of signal units in the Dalat RVN area. Work consisting of clearing 60,000 sq yds of timberland; leveling for operational facilities and construction of a protective berm and access road around a signal site located at Ambre Broye, RVN, was completed this period. At Lang Bain Mountain, work was initiated to level the top of the Mountain for antennas for a Signal Relay Station. At the close of this period the task was 80% completed. All work in support of the Signal Units in the Dalat Area is expected to be completed during the first month of the forthcoming report period.

j. (U) The task of rehabilitation of Cam Ly Airfield at Dalat, RVN, was assigned to the Battalion during this period. On 8 October 1966 a task force of 15 men moved to the site with the mission to repair pot holes and apply a sand seal coat to the 4,200 foot airfield. This relatively simple task has been prolonged and complicated by continuous rain in the Dalat Area.

k. (U) Finally, throughout this period this unit has given continuous Engineer support to the Sub-Area Command, 1st Logistical Command, Phan Rang. The Support consisted of constructing some 8,000 meters of roads throughout the depot area and 1,600 meters of canal for diversion of rainfall runoff from the nearby airfield complex which prior to this construction, literally inundated the Command's Storage Areas.

5. (U) a. Intelligence and Security: The physical external security of the Air Base Complex in which the 62nd Engineer Battalion (Const) resides is basically unchanged since the last reporting period. The Air Force has improved the security with additional protective wire and guard towers. The outer defense of the perimeter continues to include a Republic of Korea Unit which secures the area within mortar range on the Northern half of the Air Base perimeter and a ARVN Unit which secures the Southern half.

b. (U) Due to increased Air Forces security of the perimeter of the Air Base, this Unit reduced the manning of guard towers within the Cantonment area to only during the hours of darkness. Installation perimeter lighting of Cantonment area perimeter is planned during the next reporting period. Continued emphasis is placed on unit combat training and a minimum of once-monthly readiness test are conducted to maintain a high state of readiness.

c. (U) During this report period there was one (1) significant incident involving enemy action directed at personnel of this organization. On 30 October an estimate squad of Viet Cong executed an ambush of a construction site near the base of Nai Ca Du (BN 833833). Elements of one (1) construction platoon and one (1) earthmoving platoon were "pinned down" by this well executed ambush for approximately three (3) hours.

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Section 1. Significant Organization of Unit Activities (Cont'd)

One enlisted man was WIA as a result of activation of a booby trap set in a sand bag bunker normally used by the construction unit.

6. (U) a. Logistics: During the report period, the Logistical Support rendered this unit at Phan Rang has improved with the continued build-up of the 1st Logistical Sub Support Command at Phan Rang.

b. (U) The resupply of repair parts is still the most critical logistical problem facing this unit and the lack of critical items can be directly associated with lower production figures than are normally expected of a TOE Construction Battalion. A total of 13% of all authorized equipment was in a dead-line status at the close of this period. Of 2,696 PLL items authorized, 1,710 were on hand and 986 items had zero balance. Total requisition fill is 76%. In an effort to ultimately increase the availability of engineer equipment, 15 items of equipment that had been in a deadlined status in excess of 75 days have been evacuated to Sharpe General Depot, California and replacement items have been requisitioned.

c. (U) Construction materials and the resupply thereof have caused delays in construction progress on several projects assigned to this organization. The project most significantly affected by material supply continues to be the 4700 Man Cantonment area. Periodic shortage of various sizes of lumber, electrical wiring and fixtures, hinges and ram set studs at the Engineer Supply Yards at Cam Rahn Bay are directly reflected in the Construction progress of the project. Some shortages are overcome by like item or marginally suitable items substitutes in order to minimize construction delays. More significantly, the hauling of construction materials continues to be a great problem. As previously reported, this Unit must have all construction materials from Cam Rahn Bay to Phan Rang with organic hauling equipment (lowbed trailers). To emphasize the magnitude of this task and using the 4700 Man Cantonment Project as an example, approximately 1,326,920 BF of various size lumber, 456,640 sheets of metal roofing, 178,400 lin ft of insect screen, 2,000 hinges, 47.2 tons of nails and 211,730 lin ft of electrical wire (listing only bulky items) are required for the Standard 4 Construction alone which is only 30% of the total project. Hauling assistance has been received from 35th Engineer Group (Const) resources. Requests for resupply by sea have been forwarded several times with negative results to date.

Section 2, Part 1, Observations (Lessons Learned)

1. Personnel:

ITEM: In-country delivery of mail to personnel on TDY.

DISCUSSION: It is not unusual for Engineer Units in Vietnam to send numerous personnel or Units on TDY for periods in excess of 15 days. One of the many problems that is associated with TDY is that of mail delivery.

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Section 2, Part 1, Observations (Lessons Learned) (Cont'd)

There are three immediate courses of action available to cope with this problem and facilitate mail delivery to TDY troops. They Are:

(a) Mail can be delivered by courier. This method depends directly on availability of transportation (usually aircraft). With proper support this method can be the most expeditious means to deliver mail, but the normal situation is that aircraft are not available on a regularly scheduled basis. Also to be considered is the administrative burden of appointing many mail carriers to fit the situation which is usually that there are a number of men from several Units at one TDY location.

(b) Mail can be rerouted from home station APO to the APO at TDY location. This arrangement is not satisfactory because mail will be delayed an additional six (6) days at a minimum.

(c) Providing a man is to be TDY for 15 days or more, the most expeditious and consistent solution to the mail delivery problem is to determine in advance the APO or MAO number at the TDY location and have individuals going on TDY advise all correspondents of this number.

OBSERVATION: Personnel that are directed to go on TDY should be given sufficient advance notice of departure date and also the APO or MAO number of the TDY location they are going to. These personnel must be instructed to advise correspondents of the new number to insure prompt delivery of mail to TDY location.

ITEM: Family Adjustments

DISCUSSION: The families of military personnel, especially lower ranking EM, are faced with adjustments when the EM goes overseas. It is necessary that:

- (a) Plans be made for allotments.
- (b) Budgets be established.
- (c) Plans be made for meeting emergencies.

OBSERVATION: All personnel should be made aware of assistance available to their families and a packet containing this information should be given to each family prior to the time EM goes overseas. Personnel should be particularly advised that the most efficient method of providing for their family's support is by a allotment initiated at their CONUS station.

2. Operations:

ITEM: Stabilization of Beach Sand

DISCUSSION: Due to continued build up of beach storage facilities throughout Vietnam much research has been done to determine the most practical and expeditious method to stabilize beach areas.

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Section 2, Part 1, Observation (Lessons Learned) (Cont'd)

Several methods have been observed to include use of PSP overlay, sand-cement stabilization and select borrow stabilization. Use of PSP has proven unsatisfactory notwithstanding the fact that its use provides the most expeditious method of beach stabilization. After a few short weeks of heavy use the PSP becomes disjoined and warped rendering it unsuitable for further use and a momentous task to salvage or remove. Sand-cement stabilization is suitable but is costly and is unpractical due to length of construction time required to achieve desired result. Use of select borrow of various thickness applied directly on the graded beach has proven to be a satisfactory method of stabilization.

OBSERVATION: Use of select borrow to "choke" off beach sand is a satisfactory and expeditious method of beach stabilization. Select borrow with the following gradation has been used with excellent results; % passing # 3 sieve - 90%, # 4-80%, # 10-40%, # 40-3%, and # 60-1%. All road and hardstand in beach areas that are surfaced with select borrow must have a minimum of 2-3% crowned or sloped surfaces and a minimum thickness of six (6) inches compacted to 95% Mod. ASSHO density. Stabilization of beach area within the high-water mark is impossible. After stabilizing a beach area with select borrow material a water-proofing course should be considered such as DBST or similar method.

ITEM: Use of beach sand in filling rice paddies for roadways.

DISCUSSION: In building road nets in and around beach areas where it is necessary to cross rice paddy or marsh areas, use of beach sand as a base has proven satisfactory. Care must be exercised to insure that slopes of fill areas are no greater than one foot drop in seven feet horizontal distance to prevent excessive erosion from roadway runoff.

OBSERVATION: Sand, as excavated from beach areas is an excellent base material for roads over rice paddies and marsh areas. Use of sand is especially beneficial due to its availability and ease of excavation as compared to other type rocky materials.

ITEM: Expedient repair of typical masonry bridges in Vietnam.

DISCUSSION: Throughout Ninh Thuan Province, RVN, along Routes QL#1 and #11, there are numerous masonry bridges. The bridges vary in length but have the same cross section which consists of a roadway which is 8.25 feet wide and .58 inches thick. There are two concrete beams supporting the roadway and are 1.33 feet by .87 feet. Sidewalks are cantilevered from the roadway and are 4 inches thick. Due to the restricted roadway width, standard US Military Vehicles consistently utilize one side walk for the roadway. This practice has caused failure of the sidewalk which is manifested by complete shearing of the sidewalk section from the bridge structure. The resulting structure is a hazard to military and civilian traffic.

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Section 2, Part 1, Observation (Lessons Learned) (Cont'd)

OBSERVATION: Sidewalk failures as described above have occurred on several occasions on bridge along Rt QL # 1. A method of repair which consists of decking the damaged span as shown in inclosure 1 has been used with satisfactory results. Average manhours required per linear foot of decking is 2.1 .

3. Logistics:

ITEM: DA Form 14 - 110

DISCUSSION: This Battalion maintains an organization and installation Property Book; these books contain items with serial and/or USA numbers. The serial and/or USA numbers are recorded on the reverse side of the DA Form 14-110 as stated in AR 735-35, Section III, paragraph 3-2, sub-paragraph C 6 (c). Since items such as generators, vehicles, weapons, etc. are in constant use in this Theater of Operations, and there is a constant turn over of these items ie, turn-in unserviceable. These items being turned in are deleted from the property book page and the serial number is lined out. The new item is recorded and its serial number is annotated on the reverse side of the DA Form 14-110 becomes unavoidably filled and a new page is added for serial and/or USA numbers. The original DA Form 14-110 must be maintained until the balance on hand is zeroed out or the page becomes filled.

OBSERVATION: Suggest that the transaction page contain the transactions and the reverse side showing only the hand receipt holder. A separate serial number page be maintained for serial and/or USA numbers alone. This will keep the page neat and ledgable and when the serial and/or USA numbered page becomes filled the old page can be withdrawn and a new serial numbered page entered.

4. Maintenance:

ITEM: Lubrication of wheel bearings

DISCUSSION: The constant high temperatures of Vietnam has been a major factor in the high rate of loss of wheel bearings in most types of equipment, particularly heavy towed rollers and semi trailers during normal operation.

OBSERVATION: Grease, Ball and Roller Bearing FSN 9150-249-0908 has proved to be far more suitable than GAA (Grease, Automotive and Artillery) for it does not mush out from between the bearings during operation.

ITEM: Looseness in under carriage of ordnance type vehicles.

DISCUSSION: Due to the unusual conditions in Vietnam, such as rough roads, sand, water, haul roads, etc; retaining bolts and nuts securing motors, propeller shafts, transmissions, transfers, and differentials to the main frame and crossmembers loosen at an unusually fast rate.

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Section 2, Part 1, Observation (Lessons Learned) (Cont'd)

OBSERVATION: TM check lists for operators do not pin point these trouble spots. This unit has made daily check lists for certain types of equipment pin pointing the trouble spots so that during motor stables, if the check list is followed, the main areas of trouble will be eliminated.

Section 2, Part II, Recommendations:

NONE

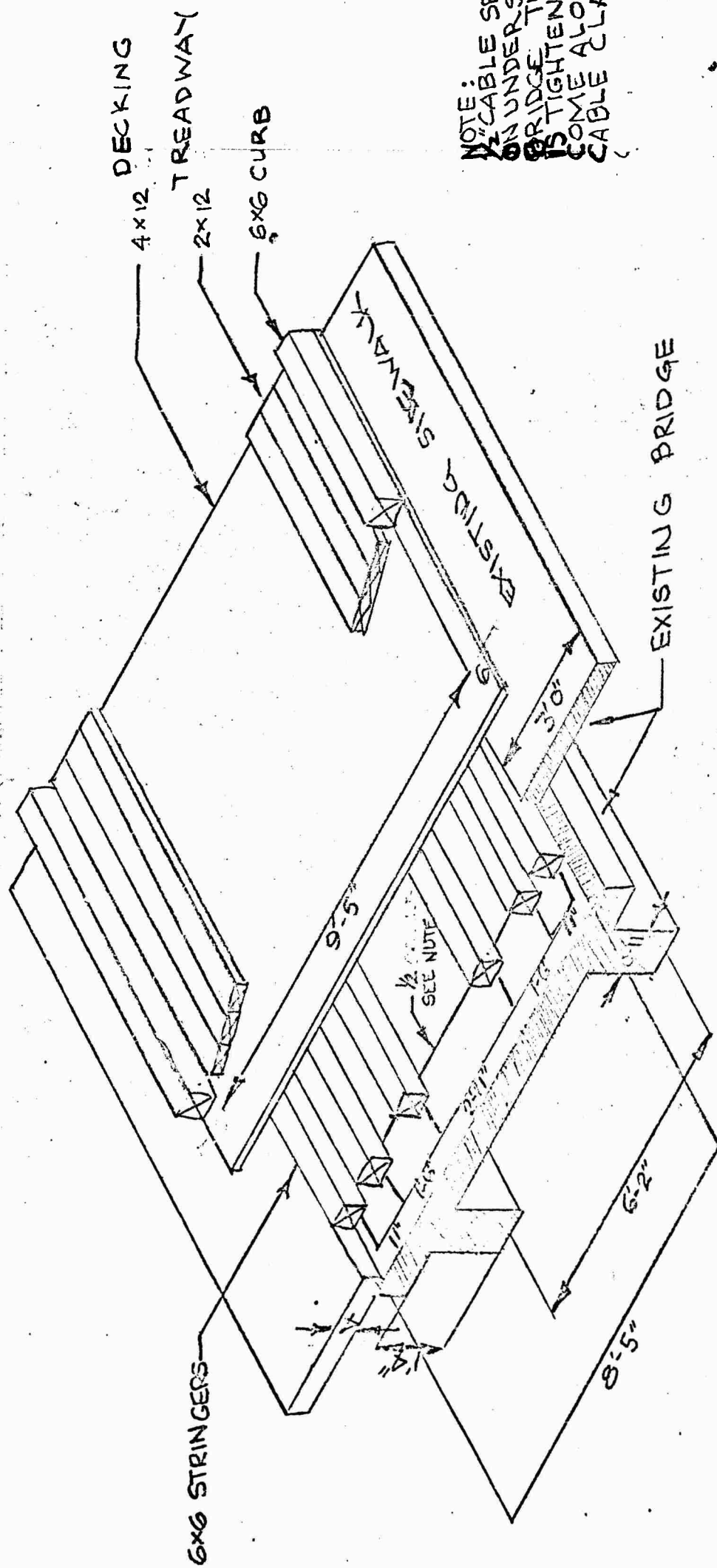
For John S. Lucman, May 6
ANDREW J. WALDROP
Lt Col, CE.
Commanding

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